Message

From: Encarnacion, Ideliz [Encarnacion.Ideliz@epa.gov]

Sent: 11/4/2019 2:58:01 PM

To: Shelby, Andrew [Shelby.Andrew@epa.gov]; Ruhman, Mohammed [Ruhman.Mohammed@epa.gov]; Engel, Patricia

[engel.patricia@epa.gov]; Wente, Stephen [Wente.Stephen@epa.gov]

CC: Lin, Sheng [Lin.Sheng@epa.gov]

Subject: RE: Lateral GW Flow Velocity memo?

Hi Andrew,

Thank you for sharing the table and references! Could you please talk with Mark about the idea to document in a memo? I think it will be helpful to do that or have an update at the PFTIT and include the information in the meeting minutes.

Thanks, Ideliz

From: Shelby, Andrew <Shelby.Andrew@epa.gov>

Sent: Monday, November 04, 2019 8:54 AM

To: Ruhman, Mohammed <Ruhman.Mohammed@epa.gov>; Engel, Patricia <engel.patricia@epa.gov>; Wente, Stephen

<Wente.Stephen@epa.gov>

Cc: Lin, Sheng <Lin.Sheng@epa.gov>; Encarnacion, Ideliz <Encarnacion.Ideliz@epa.gov>

Subject: RE: Lateral GW Flow Velocity memo?

Patricia,

The last summary table I've produced on this matter is below. Though no final guidance on this has been signed off, the discussions we've had within ERB6 Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

Mohammed and I have discussed these

values. He and I would be happy to draft a guidance document and circulate to the tech team co-chairs and management to determine if and how it should be memorialized as guidance.

Ex. 5 Deliberative Process (DP)

*Prospective groundwater studies are variable in their reporting of lateral groundwater flow velocity. Most studies report hydraulic conductivity and hydraulic gradient, many additionally calculate and report average lateral groundwater flows, and a smaller selection of studies report a range of groundwater flows from different dates and/or transects from which a maximum flow can be derived.

From: Ruhman, Mohammed < Ruhman. Mohammed@epa.gov >

Sent: Monday, November 04, 2019 7:40 AM

To: Engel, Patricia <<u>engel.patricia@epa.gov</u>>; Wente, Stephen <<u>Wente.Stephen@epa.gov</u>>; Shelby, Andrew <Shelby.Andrew@epa.gov>

Cc: Lin, Sheng < Lin. Sheng@epa.gov>; Encarnacion, Ideliz < Encarnacion. Ideliz@epa.gov>

Subject: RE: Lateral GW Flow Velocity memo?

Ex. 5 Deliberative Process (DP)

Ex. 5 Deliberative Process (DP)

REGARDS Mohammed

From: Engel, Patricia <engel.patricia@epa.gov>

Sent: Friday, November 01, 2019 9:51 AM

To: Wente, Stephen < Wente. Stephen@epa.gov>; Shelby, Andrew < Shelby. Andrew@epa.gov>

Cc: Lin, Sheng <Lin.Sheng@epa.gov>; Encarnacion, Ideliz <Encarnacion.Ideliz@epa.gov>; Ruhman, Mohammed

<Ruhman.Mohammed@epa.gov>

Subject: Lateral GW Flow Velocity memo?

Good Morning, Steve and Andrew,

Ex. 5 Deliberative Process (DP)

Also, is there a standardized tool to calculate setbacks? Attached is the spreadsheet Mohammed shared during the 3-6-19 meeting. There is also this <u>spreadsheet</u> on SharePoint from July 2018 (and attached).

Resources/Attachments:

- +Andrew's 2018 presentation
- +Minutes on Steve's question about lateral GW Flow Velocity (attached and with PPT at G:\Teams and

Panels\TechTeams\Pesticide Fate & Transport Tech Team (PFT)\Minutes & Presentations\2019\02-07-19_Solubility limit & lateral GW flow velocity)

- +Minutes on follow up from Andrew (2-13-19 attached)
- +Mohammed's 3-6-19 presentation (includes sensitivity analysis)
- +Mohammed's calculation tool

Thanks, Patricia

__

Patricia Engel | Physical Scientist Environmental Fate and Effects Division Office of Pesticide Programs, OCSPP U.S. Environmental Protection Agency

Office: PYS-10614 Phone: 703-347-0223 Engel.Patricia@epa.gov